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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,911	01/17/2002	James Kelly Thomas	46171-026	3406

7590 12/26/2002

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[REDACTED] EXAMINER

MILLER, TAKISHA S

ART UNIT	PAPER NUMBER
2855	

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/046,911	THOMAS ET AL. 
Examiner	Art Unit	
Takisha S. Miller	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____ .

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) Claim(s) ____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) ____ is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 July 2002 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____ .
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the retention device in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12" in Figure 1b has been used to designate both driver section and extension section. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 18 recites the limitation "the target" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Osofsky (5,197,323).

A. With respect to claim 1, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12). The driver section (12) and extension section (35) define a cavity (see examiner's markings on Fig. 1).

B. With respect to claim 2, Osofsky teaches a shock tube (10) wherein the extension section (35) includes sidewalls (Fig. 1).

C. With respect to claim 3, Osofsky teaches a shock tube (10) wherein the driver section (12) includes an end wall (see examiner's markings on Fig. 1) oppositely disposed from the extension section (35).

D. With respect to claim 4, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

E. With respect to claim 5, Osofsky teaches a shock tube (10) wherein the expansion section (30) includes sidewalls (see examiner's markings on Fig. 1).

F. With respect to claim the shock absorbent material and retention device in claims 1-6, it is inherent that the shock tube would contain some type of shock absorbent material in order to absorb some of the shockwaves/vibrations within the tube. It is also inherent to have some type of retention device to hold/secure the material in the tube.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 -15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osofsky (5,197,323) in view of McCabe et al. (5,405,779) and Spyche, Jr. (5,598,904).

A. With respect to claims 7,8 and 13, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12) but lacks explicitly teaching at least one active vent disposed over a hole in the extension section.

McCabe et al. teaches at least one active vent/pressure release door (56). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include at least one active vent as taught by McCabe et al. in order to dissipate excess pressure (Col. 2, lines 29-35).

B. With respect to claims 9 -11, Osofsky and McCabe et al. lack a piston including a head and dashpot. Spyche, Jr. teaches a piston (16) including a head (18) and a dashpot/rod (20). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the combination of Osofsky and McCabe et al. to include a piston as taught by Spyche, Jr. since it is commonly known in the art to provide a piston as an active vent.

C. With respect to claim 12, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

D. With respect to claims 14 and 15, the combination of Osofsky, McCabe et al. and Spyche, Jr. disclose a shock tube including at least one active vent. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide two or more active vents, since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

6. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osofsky (5,197,323) in view of Lacey, Jr. (5,606,110).

A. With respect to claim 16, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12). Osofsky lacks teaching the extension section is adjustable between one of at least two positions. Lacey, Jr. teaches an extension section (12) is adjustable between one of at least two positions (Col. 4, lines 16-21)(Fig.1b). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include an adjustable extension section, to vary the length of the tube, as a simple design choice.

B. With respect to claim 17, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12) and the expansion section (30) is movable within the extension section (35).

C. With respect to claim 18, Osofsky teaches a shock tube (10) comprising a target (37) but lacks explicitly teaching a support for the target. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include a support since it is commonly known in the art to provide some type of support to hold/secure the target/test device.

D. With respect to claims 19 and 21, Osofsky teaches a shock tube (10) but lacks an extension section including two or more segments that are movable relative to another to change a length of the extension tube. Lacey, Jr. teaches an extension section including two or more segments that are movable relative to another to change a length of the extension tube (Col. 4,

lines 16-21)(Fig. 1b). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include two or more movable segments as taught by Lacey, Jr. to vary the length of the tube, as a simple design choice.

E. With respect to claim 20, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha S. Miller whose telephone number is (703) 305-4969. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TM
December 23, 2002


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800